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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,092	02/12/2002	Roy Francois	S01022/80748	7263
23628	7590	10/29/2003	EXAMINER	
WOLF GREENFIELD & SACKS, PC FEDERAL RESERVE PLAZA 600 ATLANTIC AVENUE BOSTON, MA 02210-2211			WILSON, ALLAN R	
			ART UNIT	PAPER NUMBER
			2815	

DATE MAILED: 10/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/075,092	FRANCOIS, ROY
Examiner	Art Unit	
Allan R. Wilson	2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 10 October 2003.
- 2a) This action is FINAL.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-35 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 1-31 is/are allowed.
- 6) Claim(s) 32-35 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 12 February 2002 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
 

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>12</u> .	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Drawings***

Figures 1-6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### **Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 32-35 are rejected under 35 U.S.C. § 102(b) as being anticipated by Lee et al. (U.S. Patent No. 5,903,021, “Lee”).

With regards to claim 32, Lee illustrates in figures 7A-8E (entire document) a photodiode of a fully-depleted channel type and a precharge transistor having a source region 45 that serves as a cathode of the photodiode, the method comprising: accumulating photo generated charges within the photodiode; and outputting from the photodiode 30 a first linear signal (figs. 7E and 8E) representing to the accumulated photo generated charges.

With regards to claim 33, Lee illustrates in fig. 7E generating the first linear signal (linear region 1) from the second linear signal (linear region 2).

With regards to claim 34, Lee illustrates in figures 7A-8E a photodiode of fully-depleted-channel type operable to accumulate photo generated charges; a precharge -transistor having a source 45 region serving as a cathode of the photodiode; and means for outputting from the photodiode 30 a linear control signal (figs. 7E and 8E) representing the photo generated charges.

With regards to claim 35, the claimed "read circuitry operable to receive the linear control signal from the photodiode and to generate a linear output signal from the linear control signal for input to a processing circuit" is not considered to add any structure to the claimed device and is considered to be intended use of the device. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

#### ***Response to Arguments***

Applicant's arguments filed 10/10/2003 have been fully considered but they are not persuasive.

Applicant reports to represents Fig. 7A of Lee with Fig. 5 of the present Application. There is at least one difference, the area 37 in Lee is entirely within the region 32 while the area 26 is partly in region 28 and layer 23. This can effect the output of the devices. Since Applicant relies on Fig. 5, the arguments (pages 9-11) concerning the output is not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **there is a non-linearity of the gate control signal of control transistor M2. This non-linearity of the**

**control signal translates as a non-linearity of the output signal provided to input terminal P of the processing circuit**) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The photodiode 30 of Lee has at least two **linear** outputs at. This is illustrates in figs. 7E and 8E. The claim does not detail the structural location of the output signal.

The argument that Lee does not disclose an apparatus, comprising: a photodiode of fully-depleted-channel type operable to accumulate photogenerated charges; a precharge transistor having a source region serving as a cathode of the photodiode; and means for outputting from the photodiode a **linear** control signal representing the photogenerated charges is not persuasive. As stated in the rejection above: Lee illustrates “a photodiode of fully-depleted-channel type operable to accumulate photo generated charges; a precharge -transistor having a source 45 region serving as a cathode of the photodiode; and means for outputting from the photodiode 30 a linear control signal (figs. 7E and 8E) representing the photo generated charges.” The photodiode 30 of Lee has at least two **linear** outputs. The claim does not detail the structural location of the output signal.

#### *Allowable Subject Matter*

Claims 1-31 are allowed.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from an examiner should be directed to Primary Examiner Allan Wilson whose telephone number is (703) 305-3490. Examiner Wilson can normally be reached 7:30-4:00 Monday-Thursday and 7:30-3:00 every other Friday. If the Examiner can not be reached, contact Supervisory Patent Examiner Tom Thomas whose telephone number is (703) 308-2772.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at telephone number (703) 308-0956. The central fax number for patents is (703) 872-9306.



Allan R. Wilson  
Primary Examiner  
27 October 2003